

## Product datasheet for **RC200442**

### PLCG 2 (PLCG2) (NM\_002661) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PLCG 2 (PLCG2) (NM_002661) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PLCG 2
Synonyms:	APLAID; FCAS3; PLC-gamma-2; PLC-IV
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200442 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
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Protein Sequence: >RC200442 protein sequence  
 Red=Cloning site Green=Tags(s)

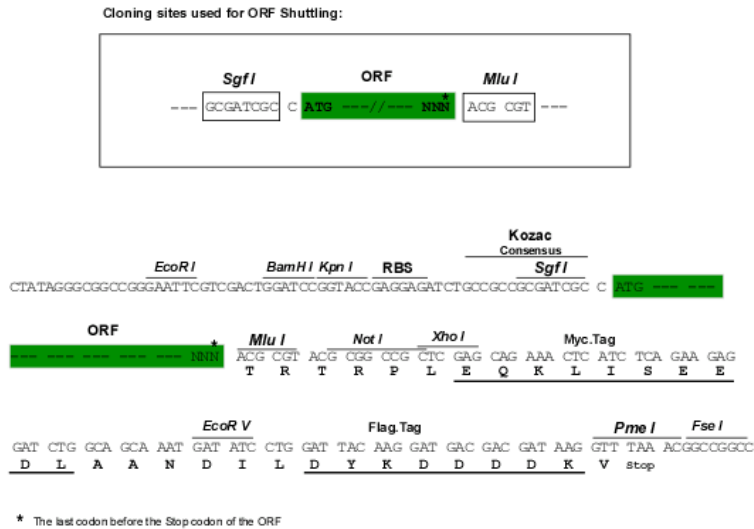
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 SKFY S

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6263\\_a07.zip](https://cdn.origene.com/chromatograms/mk6263_a07.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_002661

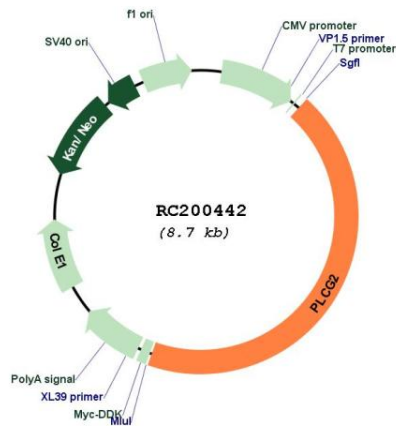
ORF Size: 3795 bp

<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_002661.5</a>
<b>RefSeq Size:</b>	8707 bp
<b>RefSeq ORF:</b>	3798 bp
<b>Locus ID:</b>	5336
<b>UniProt ID:</b>	<a href="#">P16885</a>
<b>Cytogenetics:</b>	16q23.3
<b>Domains:</b>	C2, PI-PLC-X, SH2, SH3, PI-PLC-Y, PH
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	B cell receptor signaling pathway, Calcium signaling pathway, Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Glioma, Inositol phosphate metabolism, Leukocyte transendothelial migration, Metabolic pathways, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Non-small cell lung cancer, Pathways in cancer, Phosphatidylinositol signaling system, VEGF signaling pathway, Vibrio cholerae infection
<b>MW:</b>	147.9 kDa

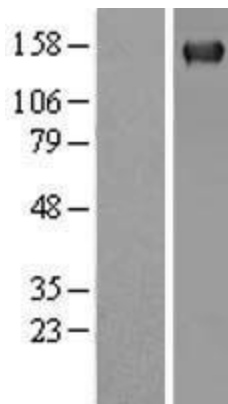
**Gene Summary:**

The protein encoded by this gene is a transmembrane signaling enzyme that catalyzes the conversion of 1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate to 1D-myo-inositol 1,4,5-trisphosphate (IP3) and diacylglycerol (DAG) using calcium as a cofactor. IP3 and DAG are second messenger molecules important for transmitting signals from growth factor receptors and immune system receptors across the cell membrane. Mutations in this gene have been found in autoinflammation, antibody deficiency, and immune dysregulation syndrome and familial cold autoinflammatory syndrome 3. [provided by RefSeq, Mar 2014]

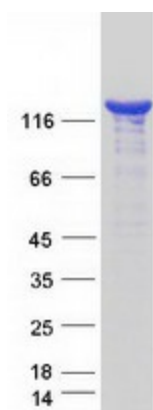
**Product images:**



Circular map for RC200442



Western blot validation of overexpression lysate (Cat# [LY419182]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200442 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PLCG2 protein (Cat# [TP300442]). The protein was produced from HEK293T cells transfected with PLCG2 cDNA clone (Cat# RC200442) using MegaTran 2.0 (Cat# [TT210002]).